F40/F45
Remote Vehicle Control System

Owner's Manual
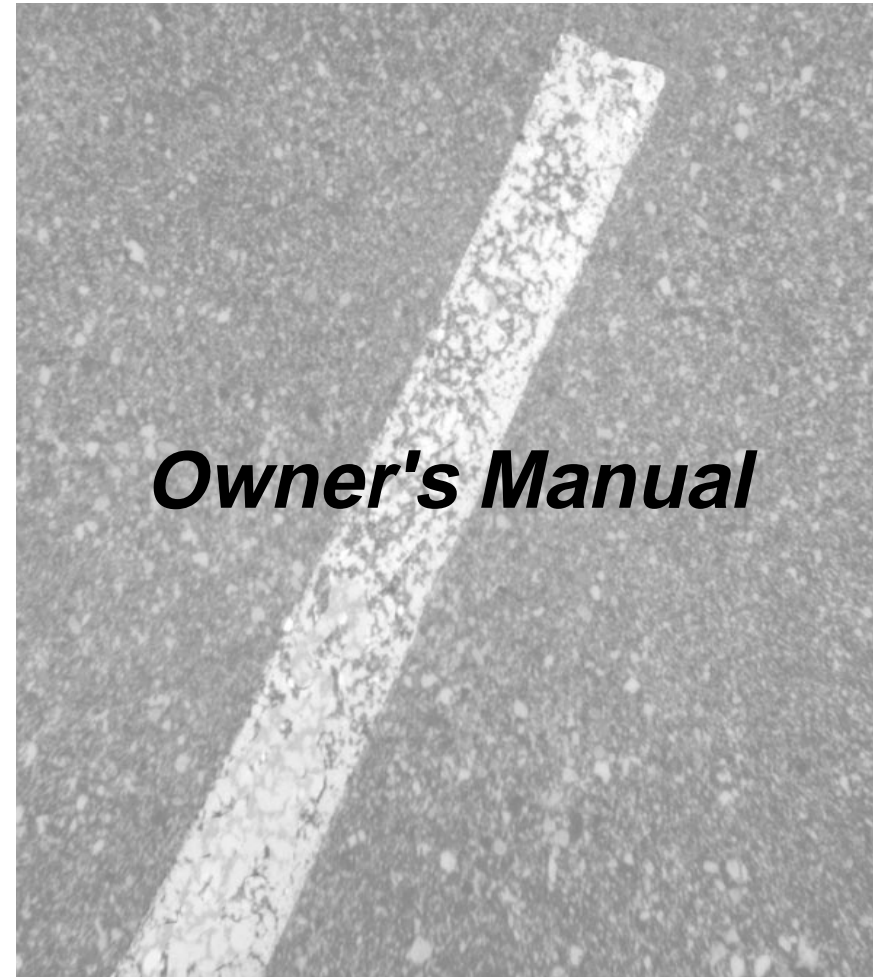
Add-On Car Start System

IMPORTANT NOTE: The operation of the F40/F45 as described in this manual is applicable to most vehicles. However, due to the engine type and configuration of some vehicles (i.e. diesel engines), some functions AND/OR SAFETY PRECAUTIONS may not apply. Please see your installing dealer for more information.

101137-8
9/01

Programming the Tach Signal

Note: Skip this step if the vehicle does not have a tach wire or if this unit will be programmed to operate without connection to the tach wire.

1. Open the vehicle hood (hood pin switch must be installed to program tach).

2. Following the steps in Section C (Programming Selectable Options), access Option Bank 2 / Feature 4.

3. Start the vehicle with the key, and allow the engine to come to a normal idle (5-10 seconds).
   The unit will flash the parking lights every three (3) seconds to indicate that it has learned the current idle speed.

Programmable Options Chart

Default settings in **BOLD**

OPTION	DESCRIPTION		STATUS INDICATOR
Option Bank 1 - 4 Chirps (Car Start Options)			
1. Tach Mode	(1) Use blind crank timing (2) Use tach input	ON(1)	**OFF**(2)
2. Blind Crank Time	(1) Avg of last 8 manual starts (2) 1.5 sec.	**ON**(1)	OFF(2)
3. Run Time	(1) 25 minutes (2) 12 minutes	ON(1)	**OFF**(2)
4. Diesel Mode	Start crank begins (1) 15 sec. or	ON (1)	**OFF**(2)
5. Positive Start Trigger	(1) Single Pulse Start (2) Double Pulse Start	ON(1)	**OFF**(2)
Option Bank Two - 5 Chirps (Installer Options)*			
1. Lock Sense Switch	(1) Positive (2) Negative	ON(1)	**OFF**(2)
2. Neutral Safety Input	(1) Positive (2) Negative	ON(1)	**OFF**(2)
3. Tach Programming**	Hood open, Start to learn	ON	**OFF**

Brake is used instead of door to enter learn mode.

 * The Installer options will never reset.

** For Tach Averaging, both Starter Key and Starter Motor wires must be hooked up.

Programming Options

1. Press brake pedal.

2. Turn vehicle ignition on.

3. Press and hold emergency override button. After 10 seconds, the parking lights will flash. This indicates that the unit has entered the default programming mode. (Activate the double pulse Start Trigger to default the options).

4. Release both the brake pedal and button.

5. Press and release the emergency override button.
   *The horn or siren will sound four (4) times. This indicates that the unit has entered the **Car Start Options Programming** mode.*

6. Pulse the (+) Start Tigger to advance to the next feature. The parking lights will flash a number of times to indicate the number of the option.

7. Press the brake petal to turn the option on or off. If installed, the vehicle status indicator will indicate whether an option is on or off.
   • **If the selected option is ON, the indicator will light.**
   • **If the selected option is OFF, the indicator will turn off.**
   • **The status indicator will turn on or off when an option is changed.**

8. Turn ignition off to exit programming.

See Options Chart on page 7.

Starting Your Vehicle

The remote start function is activated by pressing a button on your existing remote control (please see your installer for Remote Start Sequence). The system will check the vehicle to ensure that it is safe to start, and if all safety parameters are correct, the engine will start within 5 seconds (diesel engines will take longer.) Repeat the START sequence again to turn off the vehicle.

If your vehicle stalls or does not start...

If the vehicle stalls or does not start, the F40/F45 will pause 5 seconds, then try 3 more times to start the vehicle (a total of four attempts). The system pauses 5 seconds between each start attempt. If the vehicle does not start after the fourth attempt, the F40/F45 will abort the start process.

Your vehicle can be started by remote control whether the vehicle is locked or unlocked.

Remote Start Safety Features

For safety and security reasons, the F40/F45 will shut off the vehicle during remote start if any of the following occur:

- The vehicle hood is opened
- The brake is pressed before the vehicle ignition is turned on with the key
- The engine reaches 3 times its normal idle*

As a safety precaution, the vehicle will shut off if left unattended for up to 12 or 25 minutes, depending on the time preset by your installer.

Entering the Vehicle While it is Running via Remote Start

1. Press UNLOCK to unlock the door(s) (if not already unlocked).
2. Enter the vehicle. Do not press the brake pedal.
3. Insert the key into the ignition and turn to the ON position.
4. Press the brake pedal. The remote starter disengages and the vehicle will operate normally.

Pre-Heating or Pre-Cooling the Interior of the Vehicle

Before exiting the vehicle, set the temperature controls to the desired setting and operation. After the F40/F45 starts the vehicle, the heater or air-conditioning will activate and heat or cool the interior to your setting.
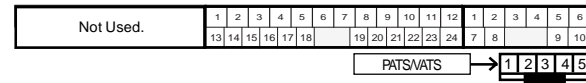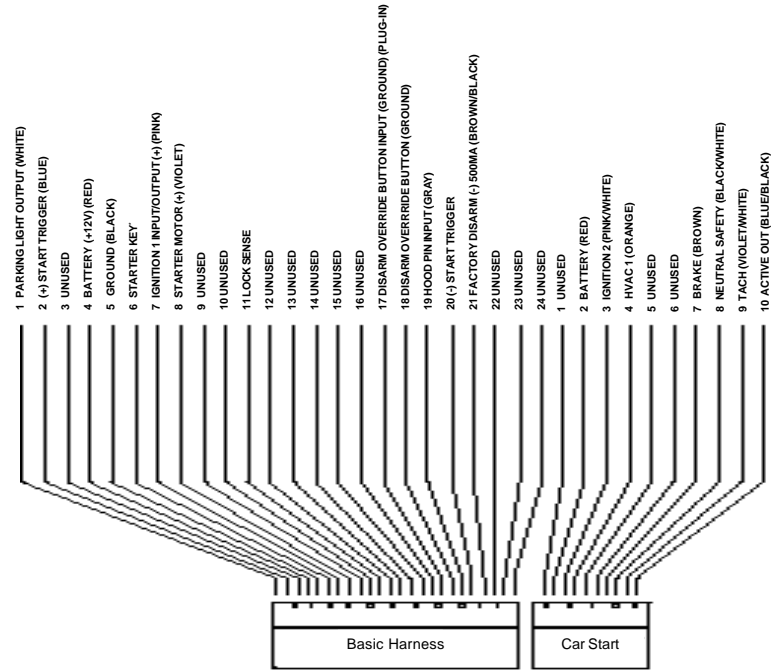
* The tach wire must be connected and the system must be in tach monitor mode.
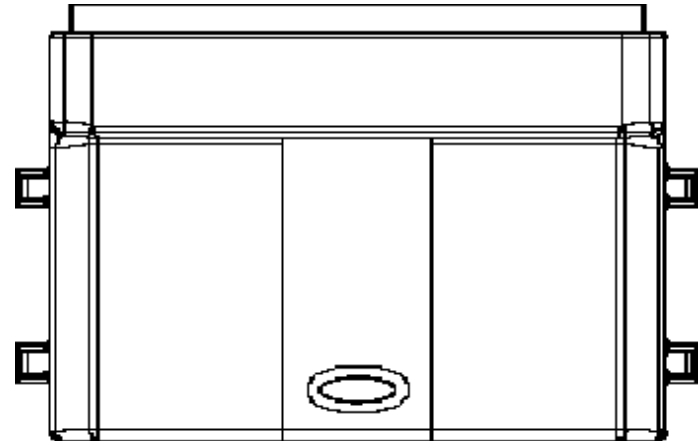
Basic Troubleshooting

This section outlines some of the basic issues you may experience while becoming used to the F40/F45. If you have a problem that is not covered by this section, please consult your installer.

Symptom	Problem	Solution
System will not remote start	Hood is open Brake is pressed	Close hood Release brake

IMPORTANT!!!
The module MUST be programmed before it will operate.
Refer to the programming instructions on pages 6-7.

1 PARKING LIGHT OUTPUT (WHITE)
2 (+) START TRIGGER (BLUE)
3 UNUSED
4 BATTERY (+12V) (RED)
5 GROUND (BLACK)
6 STARTER KEY
7 IGNITION 1 INPUT/OUTPUT (+) (PINK)
8 STARTER MOTOR (+) (VIOLET)
9 UNUSED
10 UNUSED
11 LOCK SENSE
12 UNUSED
13 UNUSED
14 UNUSED
15 UNUSED
16 UNUSED
17 DISARM OVERRIDE BUTTON INPUT (GROUND) (PLUG-IN)
18 DISARM OVERRIDE BUTTON (GROUND)
19 HOOD PIN INPUT (GRAY)
20 (-) START TRIGGER
21 FACTORY DISARM (-) 500MA (BROWN/BLACK)
22 UNUSED
23 UNUSED
24 UNUSED
1 UNUSED
2 BATTERY (RED)
3 IGNITION 2 (PINK/WHITE)
4 HVAC 1 (ORANGE)
5 UNUSED
6 UNUSED
7 BRAKE (BROWN)
8 NEUTRAL SAFETY (BLACK/WHITE)
9 TACH (VIOLET/WHITE)
10 ACTIVE OUT (BLUE/BLACK)

Basic Harness   Car Start

Not Used.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
	13	14	15	16	17	18		19	20	21	22	23	24	7	8			9	10

PATS/VATS → 1 2 3 4 5

Wire End View

* Used for Blind Crank Mode.